I've recently been in communication with Lance regarding the stimulus development for our experiment and the flight scenario. As you may recall, Lance and Randy were working to produce the display images for us by 2/16 or 2/19. When Lance began to investigate our scenario in the simulator at Langley, he found some portions to be unflyable with the 757 and images could not be generated with the aircraft state-space information we provided or the vehicle settings. With this in mind, Lance proposed to slightly revise the scenario and to work to generate images from the simulator. In so doing, he relayed that there was limited availability of the simulator, high time cost to fly the scenario and record stills, and reduced clarity of HUD images relative to optimal conditions.

Related to our meeting in December, Lance suggested that we revise the scenario to the standard ILS approach into KRNO for 16R and consider using existing videos to produce the display images. The advantages here are that the approach is realistic and NASA can easily provide the screenshots we need from the videos. It is also very clear what the instrument procedures are and what we should tell the pilots during the scenario. The procedure can also be setup for autoland since there is an ILS for the autopilots to lock on to. Beyond this, NASA has an airlines (AA) procedure guide for the approach.

At this time, Lance is going to provide a video of an ILS approach to KRNO and the AA procedure to Karl. Karl and I are going to revise the scenario based on the video. Therefore, Lance will definitely be able to create the images we need for the experiment. Lance will generate the stills for the experiment based on the revised scenario. It is likely that these tasks will take place this week and next. We will make a decision about whether to proceed with the experiment on Friday (2/23).

I proposed to Lance that we consider shifting the dates for the study until after the NCSU spring break (3/5-9) in order to allow for some preliminary testing of the scenario and images with Karl at NCSU. Since Nathan and I

have other travel occurring at the close of next week, I suggested 3/15-16 as alternate dates for the study. As you may recall, the following action items were identified at our last meeting:

2/16 - NCSU to revise informed consent and develop overview of experiment for pilots.

2/19-2/20 - NCSU to conduct dry run of experiment using Aptima protocol and measures (with Kaufman). Report time required for experiment session to NASA.

2/21-2/23 - NASA to schedule expert pilots for experiment participation.

2/21-2/28 - NCSU to prepare final trial schedules including ordering of conditions. Build spreadsheets for recording data. Secure video recording equipment. Aptima to prepare folders for subjects. NCSU and Aptima make travel arrangements.

To my knowledge, only the dry-runs remain outstanding.

In any case, the dates for the experiment may change and I will keep everyone posted. Let me know if you have any questions or concerns on these developments.